

**ABSTRACT OF THE DISCLOSURE****WDM TRANSMITTER**

5           A WDM transmitter comprising an array of M pump lasers multiplexed by an MxN multiplexer, in the form of a coupler, and used to feed an array of N optically pumped fiber lasers emitting at wavelengths  $\lambda_1, \lambda_2, \dots \lambda_N$ . The parameter M determines the number of pump lasers as well as the number of inputs of the pump-multiplexing coupler and can be smaller or equal to parameter N that determines the number of  
10   optically pumped lasers. The fiber laser outputs are passed through N isolators before entering N modulators where the signals are monolithically modulated. The outputs of the modulators are passed through an array of N tunable attenuators. Finally all the individual channel outputs are recombined into a single output in a combiner. The output will typically lead to an optical network. The proposed architecture may also be  
15   used for optical amplifiers, especially fiber-based optical amplifiers.

Figure 1

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